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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,354	03/04/2002	Jafferhusen Abdulhusen Ajani	LD0262NP	3877

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EXAMINER

KRASS, FREDERICK F

ART UNIT	PAPER NUMBER
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1614

DATE MAILED: 02/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

10/090,354

AJANI ET AL

Examiner

Frederick Krass

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

Scope of Enablement Rejection

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-11 and 13 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the treatment of colorectal, ovarian, breast, esophageal and stomach cancers, does not reasonably provide enablement for the treatment of cancers in general. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

Attention is directed to *In re Wands*, 8 USPQ2d 1400 (CAFC 1988) at 1404 where the court set forth the eight factors to consider when assessing if a disclosure would have required undue experimentation. Citing *Ex parte Forman*, 230 USPQ 546 (BdApl 1986) at 547 the court recited eight factors:

- 1) the quantity of experimentation necessary,
- 2) the amount of direction or guidance provided,
- 3) the presence or absence of working examples,
- 4) the nature of the invention,
- 5) the state of the prior art,

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- 6) the relative skill of those in the art,
- 7) the predictability of the art, and
- 8) the breadth of the claims.

The instant specification fails to provide guidance that would allow the skilled artisan to practice the instant invention without resorting to undue experimentation, as discussed in the subsections set forth hereinbelow.

1. The nature of the invention, state of the prior art, relative skill of those in the art, and the predictability of the art

The claimed invention relates to the treatment of cancer.

The relative skill of those in the art is generally that of a PHD candidate or PHD.

USP 5,919,816 represents a standard publication in the art and as such is directed to those having ordinary skill in the art.

USP 5,919,816 demonstrates the unpredictability of the claimed subject matter. See for example column 1, lines 35-65, which teaches that the mechanisms by which anticancer drugs work are not well-understood. Given this, the skilled artisan will appreciate that results obtained with a given agent for a particular cancer type (e.g. colon cancer) cannot be reasonably extrapolated to other cancer types (e.g. pancreatic cancer), which would be treated via different mechanisms, in an *a priori* manner. See also the various case law which supports the assertion that cancer treatment across

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tissue types is unpredictable, e.g. Ex parte Timmis, 123 USPQ 581 (1959) and In re Butting 163 USPQ 689 (1969).

Given the above facts, it is clear that the art to which the instant invention relates involves a relatively high degree of unpredictability.

2. The breadth of the claims

Claims 1-11 and 13 are very broad and inclusive of any and all cancer types.

3. The amount of direction or guidance provided and the presence or absence of working examples

The specification provides no direction or guidance for treating specific types of cancer other than esophageal and stomach cancer, which are the only species actually tested in the working examples.

4. The quantity of experimentation necessary

Applicant fails to provide guidance and information sufficient to allow the skilled artisan to ascertain which specific cancer types, known or to be discovered, can reasonably be expected to treatment with the claimed combinations without resorting to undue experimentation. Testing would have to be conducted on each cancer type, with

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no expectation of success for treatment of any particular cancer other than esophageal and stomach cancer being present.

Obviousness Rejection

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bissery (USP 6,239,167) in view of Junji et al (USP 5,534,513).

The primary reference discloses methods for treating neoplastic diseases with a combination of taxol (a.k.a. paclitaxel) and a platinum coordination complex such as carboplatin. See column 1, line 51, and the claims. An antimetabolite such as 5-fluorouracil may further be incorporated into the treatments: see column 1, lines 38 and 39, and Table 3 at column 3. The various agents may be administered together or separately, in any order (column 4, lines 4-9). The administration may be oral (column 4, line 17). The primary reference differs from the instant claims insofar as it does specifically disclose using a combination of tegfur, uracil and folinic acid as an antimetabolite.

The secondary reference teaches that the combination of tegafur and uracil, used in amounts sufficient to produce an effective amount of 5-fluorouracil (i.e., a molar

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ratio of about 1:4), together with folinic acid, is preferred for use as an antimetabolite to 5-fluorouracil *per se*, since that (prodrug) combination is less toxic and more effective than the free drug. See for example column 1, lines 14-64. The secondary reference differs from the instant claims insofar as it is silent regarding paclitaxel and carboplatin.

It would have been obvious to have used a combination of tegafur, uracil and folinic acid in place of the 5-fluorouracil taught by the primary reference, motivated by the desire to improve therapeutic efficacy and reduce side-effects as taught by the secondary reference.

Allowable Subject Matter

Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 6, 7 and 9-11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The prior art of record does not fairly suggest treating cancer of the esophagus, gastroesophageal junction, or stomach. The prior art in fact teaches away from treating these particular cancers insofar as it specifies the treatment of very different cancer types, i.e. of the ovary, breast and lung (column 1, lines 19 and 20 of Bissery) or colon (column 5, lines 39-45 of Junji et al). Moreover, Applicant has shown that the instant

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instant combination of chemotherapeutic agents, when administered via a combination of oral and intravenous routes (as recited in claims 6, 7 and 9-11), unexpectedly provides improved ease of administration and therapeutic efficacy (as discussed at pages 3 and 4 of the specification, and as factually verified by the working examples).

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick Krass whose telephone number is (703) 308-4335. The examiner can normally be reached on Monday, Tuesday and Thursday from 9am to 5pm, and on Friday from 11am to 7pm. The examiner is off Wednesday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marianne Seidel, can be reached at (703) 308-4725. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0193.

Frederick Krass
Primary Examiner
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